



[4910-13-P]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2014-0012; Directorate Identifier 2012-NM-007-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to supersede Airworthiness Directive (AD) 2004-16-01, that applies to certain Airbus Model A330-200 and -300, and Model A340-200 and -300, series airplanes. AD 2004-16-01 currently requires repetitive inspections for cracking of the chromed area of the left and right piston rods for the main landing gear (MLG) retraction actuators, and related investigative and corrective actions if necessary. Since we issued AD 2004-16-01, we have determined that the presence of water in the internal volume of the piston rod can consequently lead to propagation of longitudinal cracking in the body of the piston rod. We have also determined through sampling that certain retraction actuator piston rods of the MLG need to be replaced. This proposed AD would require repetitive draining of any fluid from the retraction actuator piston rod internal volume and sealing of the vent hole; repetitive ultrasonic inspections of the upper end of the piston rods, and corrective actions if necessary; a one-time ultrasonic inspection (longitudinal and circumferential) of the full-length of the piston rod, and corrective actions if necessary; and a terminating modification of the left-hand and right-hand MLG

retraction actuators. We are proposing this AD to prevent cracking of the piston rods for the MLG retraction actuators, which could result in rupture of a piston rod, non-damped extension of the MLG, high loads on the fully extended MLG, and consequent reduced structural integrity of the MLG.

**DATES:** We must receive comments on this proposed AD by **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Airbus SAS – Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com); Internet <http://www.airbus.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW.,

Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0012; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-1138; fax (425) 227-1149.

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the **ADDRESSES** section. Include “Docket No. FAA-2014-0012; Directorate Identifier 2012-NM-007-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all

comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

## **Discussion**

On July 23, 2004, we issued AD 2004-16-01, Amendment 39-13757 (69 FR 46979, August 4, 2004). AD 2004-16-01 requires actions intended to address an unsafe condition on the products listed above.

Since we issued AD 2004-16-01, the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2011-0178R1, dated March 6, 2012, corrected March 7, 2012 (for Model A340-200 and -300 series airplanes); and EASA AD 2011-0179R1, dated March 6, 2012 (for Model A330-200 and -300 series airplanes); (both referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”); to correct an unsafe condition for the specified products. EASA AD 2011-0178R1, dated March 6, 2012, corrected March 7, 2012, states:

During an approach phase, the flight crew of an A330 aeroplane had to perform a free-fall extension of the left-hand (LH) MLG.

Rupture of the LH MLG retraction actuator piston rod was found near the rod attachment point. The inspection revealed at the location of the rupture the presence of corrosion resulting from incorrect application of the

anticorrosion protection, and circumferential cracks resulting from normal operational loading effects.

Since the above rupture, new cases of crack propagation along the length of the piston rod occurred. These ruptures led to a non-damped extension of the landing gear. Fully extended, the landing gear assembly was submitted to high loads jeopardizing its structural integrity.

This condition, if not detected and corrected, could lead to MLG failure during landing or roll-out and consequent damage to the aeroplane and injury to occupants.

DGAC France issued AD F-2005-098 (EASA approval 2005-5887) [and AD F-2005-099 (EASA approval 2005-5888)] to address this unsafe condition [the FAA issued AD 2004-16-01, Amendment 39-13757 (69 FR 46979, August 4, 2004)]. Since that [DGAC France] AD was issued, the results of extensive investigation determined that the presence of water in the internal volume of the piston rod can lead to the formation of ice which represents a potential source of high magnitude tensile hoop stresses in the material of the rod, leading to propagation of longitudinal crack in the body of the piston rod.

Prompted by these findings, EASA issued AD 2006-0301, partially retaining the requirements of DGAC France AD F-2005-099, which was superseded, and to revise the inspection requirements as follows:

- a. Extend the repetitive inspections interval for the removal of fluid from the internal volume of the piston rod using flight cycles in lieu of flight hours as this better represents the mechanism for the accumulation of water within the piston rod.
- b. Remove the preliminary visual inspection from the ultrasonic longitudinal inspection of the upper end of the piston rod.

c. Add a new one-time ultrasonic longitudinal and circumferential inspection of the full piston rod length to eliminate any parts that exhibit severe corrosion along the internal length of the piston rod.

d. Require installation of new design hollow piston rod Part Number (P/N) 114256328 (Airbus mod. 52980 - SB A340-32-4222 Revision 01) without a vent hole, thus eliminating moisture ingress as the terminating action.

EASA AD 2006-0301 was later revised:

- at revision 01, to correct a number of typographical errors and to add reference to Airbus SB A340-32-4212 Revision 04, and
- at revision 02 to extend the inspections threshold from 3 to 6 years in service usage for retraction actuator piston rod P/N 114256321 issue 06 which was re-identified to P/N 114256326 issue 01 in accordance with the instructions of Airbus SB A340-32-4260.

More recently, the sampling of piston rod P/N 114256326 issue 1 and P/N 114256321 issue 06 have confirmed the need to replace all retraction actuator piston rods with a piston rod P/N 114256328.

For the reasons described above, this [EASA] AD at original issue retained the requirements of EASA AD 2006-0301R2 ([http://ad.easa.europa.eu/blob/easa\\_ad\\_2006\\_0301\\_R2\\_superseded.pdf/AD\\_2006-0301R2\\_1](http://ad.easa.europa.eu/blob/easa_ad_2006_0301_R2_superseded.pdf/AD_2006-0301R2_1)), which is superseded, and required the replacement of all retraction actuator piston rods with a piston rod P/N 114256328, which constitutes terminating action to the repetitive requirements of this AD.

This [EASA] AD is revised to clarify that aeroplanes on which Airbus mod. 52980 has been embodied in production are not required to accomplish the reidentification of MLG retraction actuator P/N 114256002-055 which is mentioned in the accomplishment instructions of Airbus SB A340-32-4222 Revision 03.

This [EASA] AD has been republished to correct a typographical mistake of the applicable Airbus SB number in the Applicability (in the Note) and in the Reason sections of this [EASA] AD.

You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov> by searching for and locating it in Docket No.

FAA-2014-0012.

### **Relevant Service Information**

Airbus has issued the following service bulletins.

- Airbus Mandatory Service Bulletin A330-32-3173, Revision 05, dated September 26, 2008.

- Airbus Mandatory Service Bulletin A330-32-3180, Revision 03, dated January 28, 2011.

- Airbus Mandatory Service Bulletin A340-32-4212, Revision 05, dated September 26, 2008.

- Airbus Mandatory Service Bulletin A340-32-4222, Revision 03, dated January 28, 2011.

The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

### **FAA's Determination and Requirements of this Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because

we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

#### **Differences Between this Proposed AD and the MCAI or Service Information**

EASA AD 2011-0178R1, dated March 6, 2012, corrected March 7, 2012 (for Model A340-200 and -300 series airplanes); and AD 2011-0179R1, dated March 6, 2012 (for Model A330-200 and -300 series airplanes); require replacement of the retraction actuator within 10 flight cycles if the findings of the ultrasonic inspection of the retraction actuator piston rod end are between 75% and 90% FSH (full screen height) and between 5 and 7 in time base. However, paragraph (n) of this proposed AD would require replacement of the retraction actuator before further flight if the findings of the ultrasonic inspection of the retraction actuator piston rod end are higher than 75% and between 5 and 7 in time base.

EASA AD 2011-0178R1, dated March 6, 2012, corrected March 7, 2012 (for Model A340-200 and -300 series airplanes); and AD 2011-0179R1, dated March 6, 2012 (for Model A330-200 and -300 series airplanes); require replacement of the retraction actuator within 10 landings if the findings of the one-time ultrasonic circumferential inspection of the full-length chromed part of the piston rod give an indication between 75% and 90% FSH and between 7 and 9.5 in time base. However, paragraph (p)(2) of this proposed AD would require replacement of the retraction actuator before further flight if inspection findings are higher than 75% FSH and between 7 and 9.5 in time base.



We have determined that, because of the safety implications and consequences associated with those findings, the actuator must be replaced before further flight. These differences have been coordinated with EASA.

### **Costs of Compliance**

We estimate that this proposed AD affects 24 Model A330-200 and -300 series airplanes of U.S. registry. There are no Model A340-200 and -300 series airplanes of U.S. registry.

We estimate that it would take about 67 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$56,000 per product (2 actuators). Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$1,480,680, or \$61,695 per product.

In addition, we estimate that any necessary follow-on actions would take about 38 work-hours and require parts costing \$56,000 (2 actuators), for a cost of \$59,230 per product. We have no way of determining the number of aircraft that might need these actions.

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

## **Paperwork Reduction Act**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this proposed AD is 2120-0056. The paperwork cost associated with this proposed AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this proposed AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591, ATTN: Information Collection Clearance Officer, AES-200.

## **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This proposed regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2004-16-01, Amendment 39-13757 (69 FR 46979, August 4, 2004), and adding the following new AD:

**Airbus:** Docket No. FAA-2014-0012; Directorate Identifier 2012-NM-007-AD.

#### **(a) Comments Due Date**

We must receive comments by **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

#### **(b) Affected ADs**

This AD supersedes AD 2004-16-01, Amendment 39-13757 (69 FR 46979, August 4, 2004).

#### **(c) Applicability**

This AD applies to Airbus Model A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; and Model A340-211, -212, and -213, -311, -312, and -313 airplanes; certificated in any category; all manufacturer serial numbers, except for those airplanes that have had Airbus Modification 52980 incorporated in production on both main landing gear (MLG) units, or airplanes that have had Airbus Modification 54500 incorporated in production.

**(d) Subject**

Air Transport Association (ATA) of America Code 32, Landing Gear.

**(e) Reason**

This AD was prompted by reports of the piston rods for the MLG retraction actuators rupturing during flight. We are issuing this AD to prevent cracking of the piston rods for the MLG retraction actuators, which could result in rupture of a piston rod, non-damped extension of the MLG, high loads on the fully extended MLG, and consequent reduced structural integrity of the MLG.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Repetitive Detailed Inspections**

At the applicable time specified in paragraph (g)(1) or (g)(2) of this AD: Do a detailed inspection for cracking of the visible chromed area of the MLG retraction actuator piston rods in the fully extended position, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-32-3173, Revision 05, dated September 26, 2008 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-32-4212, Revision 05, dated September 26, 2008 (for Model A340-200 and -300 series airplanes). Repeat the inspection thereafter at intervals not to exceed 8 days until the actions required by paragraphs (j) and (o) of this AD are accomplished.

(1) For MLG retraction actuator piston rods that have not had a detailed inspection accomplished as of the effective date of this AD, as described in any applicable service information specified in paragraph (h)(1) or (h)(2) of this AD: At the applicable time specified in paragraph (g)(1)(i) or (g)(1)(ii) of this AD.

(i) For MLG retraction actuator piston rods having part number (P/N) 114256309, or P/N 114256321 issue 03: Do the inspection within 60 days after the effective date of this AD, or before the MLG retraction actuator has been in service 36 months, whichever occurs later.

(ii) For MLG retraction actuator piston rods having P/N 114256326 issue 01, or P/N 114256321 issue 06: Do the inspection within 60 days after the effective date of this AD, or before the MLG retraction actuator has been in service 72 months, whichever occurs later.

(2) For MLG retraction actuator piston rods having P/N 114256309, P/N 114256321 issue 03, P/N 114256326 issue 01, or P/N 114256321 issue 06, that have had a detailed inspection accomplished as of the effective date of this AD, as described in the applicable service information specified in paragraph (h)(1) or (h)(2) of this AD: Inspect within 8 days after the effective date of this AD.

**(h) Service Information to Determine Airplane Configuration for Paragraph (g) of this AD**

(1) For Model A330 airplanes:

(i) Airbus Mandatory Service Bulletin A330-32-3173, Revision 01, dated June 16, 2004;

(ii) Airbus Mandatory Service Bulletin A330-32-3173, Revision 02, dated May 11, 2005;

(iii) Airbus Mandatory Service Bulletin A330-32-3173, Revision 03, dated March 13, 2006;

(iv) Airbus Mandatory Service Bulletin A330-32-3173, Revision 04, dated June 12, 2006; or

(v) Airbus Mandatory Service Bulletin A330-32-3173, Revision 05, dated September 26, 2008.

(2) For Model A340-200 and -300 series airplanes:

(i) Airbus Mandatory Service Bulletin A340-32-4212, Revision 01, dated June 16, 2004;

(ii) Airbus Mandatory Service Bulletin A340-32-4212, Revision 02, dated May 11, 2005;

(iii) Airbus Mandatory Service Bulletin A340-32-4212, Revision 03, dated March 13, 2006;

(iv) Airbus Mandatory Service Bulletin A340-32-4212, Revision 04, dated June 12, 2006; or

(v) Airbus Mandatory Service Bulletin A340-32-4212, Revision 05, dated September 26, 2008.

**(i) Corrective Action for Cracking**

If any cracking is found during any inspection required by paragraph (g) of this AD: Before further flight, replace the MLG retraction actuator with a new or serviceable part, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-32-3173, Revision 05, dated September 26, 2008 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-32-4212, Revision 05, dated September 26, 2008 (for Model A340-200 and -300 series airplanes).

**(j) Repetitive Fluid Draining and Vent Hole Sealing**

At the applicable time specified in paragraph (j)(1) or (j)(2) of this AD: Drain any fluid from the retraction actuator piston rod internal volume and seal the vent hole, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-32-3173, Revision 05, dated September 26, 2008 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-32-4212, Revision 05, dated September 26, 2008 (for Model A340-200 and -300 series airplanes). Repeat the draining

and sealing thereafter at intervals not to exceed 1,000 flight cycles or 24 months, whichever occurs first.

(1) For MLG retraction actuator piston rods that have not been inspected and have not had the fluid drained as of the effective date of this AD, as described in the applicable service information specified in paragraph (k)(1) or (k)(2) of this AD: At the applicable time specified in paragraph (j)(1)(i) or (j)(1)(ii) of this AD.

(i) For MLG retraction actuator piston rods having P/N 114256309, or P/N 114256321 issue 03: Do the draining and sealing within 60 days after the effective date of this AD or before the MLG retraction actuator has been in service 36 months, whichever occurs later.

(ii) For MLG retraction actuator piston rods having P/N 114256326 issue 01, or P/N 114256321 issue 06: Do the draining and sealing within 60 days after the effective date of this AD or before the MLG retraction actuator has been in service 72 months, whichever occurs later.

(2) For MLG retraction actuator piston rods having P/N 114256309, P/N 114256321 issue 03, P/N 114256326 issue 01, or P/N 114256321 issue 06, that have been inspected and the fluid drained as of the effective date of this AD, as described in the applicable service information specified in paragraph (k)(1) or (k)(2) of this AD: Do the draining and sealing at the later of the times specified in paragraphs (j)(2)(i) and (j)(2)(ii) of this AD.

(i) Within 1,000 flight cycles or 24 months, whichever occurs first, from the last inspection and fluid drainage accomplished in accordance with the actions required in paragraph (j) of this AD.

(ii) Within 60 days after the effective date of this AD.



**(k) Service Information to Determine Configuration for Paragraph (j) of this AD**

(1) For Model A330 airplanes:

(i) Airbus Mandatory Service Bulletin A330-32-3173, Revision 02, dated May 11, 2005;

(ii) Airbus Mandatory Service Bulletin A330-32-3173, Revision 03, dated March 13, 2006;

(iii) Airbus Mandatory Service Bulletin A330-32-3173, Revision 04, dated June 12, 2006; or

(iv) Airbus Mandatory Service Bulletin A330-32-3173, Revision 05, dated September 26, 2008.

(2) For Model A340-200 and -300 series airplanes:

(i) Airbus Mandatory Service Bulletin A340-32-4212, Revision 02, dated May 11, 2005;

(ii) Airbus Mandatory Service Bulletin A340-32-4212, Revision 03, dated March 13, 2006;

(iii) Airbus Mandatory Service Bulletin A340-32-4212, Revision 04, dated June 12, 2006; or

(iv) Airbus Mandatory Service Bulletin A340-32-4212, Revision 05, dated September 26, 2008.

**(l) Ultrasonic Inspection**

At the applicable time specified in paragraph (l)(1) or (l)(2) of this AD: Do an ultrasonic longitudinal inspection for cracking of the retraction actuator piston rod end, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-32-3173, Revision 05, dated September 26, 2008 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-32-4212, Revision 05, dated September 26, 2008 (for Model A340-200 and -300 series airplanes).

(1) For MLG retraction actuator piston rods that have not had a non-destructive test (NDT) inspection as of the effective date of this AD, as described in the applicable service information specified in paragraph (m)(1) or (m)(2) of this AD: At the applicable time specified in paragraph (l)(1)(i) or (l)(1)(ii) of this AD.

(i) For MLG retraction actuator piston rods having P/N 114256309, or P/N 114256321 issue 03: Do the inspection within 60 days after the effective date of this AD, or before the MLG retraction actuator has been in service 36 months, whichever occurs later.

(ii) For MLG retraction actuator piston rods having P/N 114256326 issue 01, or P/N 114256321 issue 06: Do the inspection within 60 days after the effective date of this AD, or before the MLG retraction actuator has been in service 72 months, whichever occurs later.

(2) For MLG retraction actuator piston rods having P/N 114256309, P/N 114256321 issue 03, P/N 114256326 issue 01, or P/N 114256321 issue 06, that have had an NDT inspection as of the effective date of this AD, as described in the applicable service information specified in paragraph (m)(1) or (m)(2) of this AD: Do the inspection at the later of the times specified in paragraphs (l)(2)(i) and (l)(2)(ii) of this AD.

(i) Within 1,400 flight hours, 250 flight cycles, or 4 months, whichever occurs first after the date of the last ultrasonic longitudinal inspection performed as described in the applicable service information specified in paragraph (m)(1) or (m)(2) of this AD.

(ii) Within 60 days after the effective date of this AD.

**(m) Service Information to Determine Configuration for Paragraph (l) of this AD**

(1) For Model A330 airplanes:

(i) Airbus Mandatory Service Bulletin A330-32-3173, dated December 17, 2003;

(ii) Airbus Mandatory Service Bulletin A330-32-3173, Revision 01, dated June 16, 2004;

(iii) Airbus Mandatory Service Bulletin A330-32-3173, Revision 02, dated May 11, 2005;

(iv) Airbus Mandatory Service Bulletin A330-32-3173, Revision 03, dated March 13, 2006;

(v) Airbus Mandatory Service Bulletin A330-32-3173, Revision 04, dated June 12, 2006; or

(vi) Airbus Mandatory Service Bulletin A330-32-3173, Revision 05, dated September 26, 2008.

(2) For Model A340-200 and -300 series airplanes:

(i) Airbus Mandatory Service Bulletin A340-32-4212, dated December 17, 2003;

(ii) Airbus Mandatory Service Bulletin A340-32-4212, Revision 01, dated June 16, 2004;

(iii) Airbus Mandatory Service Bulletin A340-32-4212, Revision 02, dated May 11, 2005;

(iv) Airbus Mandatory Service Bulletin A340-32-4212, Revision 03, dated March 13, 2006;

(v) Airbus Mandatory Service Bulletin A340-32-4212, Revision 04, dated June 12, 2006; or

(vi) Airbus Mandatory Service Bulletin A340-32-4212, Revision 05, dated September 26, 2008.

**(n) Corrective Action for Ultrasonic Inspection; Repetitive Interval**

(1) If the finding of the inspection required by paragraph (l) of this AD gives an indication of 75% or higher of full screen height (FSH) and between 5 and 7 in time base:

Before further flight, replace the MLG retraction actuator with a new or serviceable part, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-32-3173, Revision 05, dated September 26, 2008 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-32-4212, Revision 05, dated September 26, 2008 (for Model A340-200 and -300 series airplanes).

(2) If the finding of the inspection required by paragraph (1) of this AD gives an indication of less than 75% FSH and between 5 and 7 in time base: Repeat the inspection required by paragraph (1) of this AD thereafter at intervals not to exceed 1,400 flight hours, 250 flight cycles, or 4 months, whichever occurs first.

**(o) One-time Ultrasonic Inspections of the Full-length of the Piston Rod**

At the applicable time specified in paragraph (o)(1) or (o)(2) of this AD: Do a full-length ultrasonic longitudinal and a full-length circumferential inspection of the chromium-plated area of the piston rod for cracking, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-32-3173, Revision 05, dated September 26, 2008 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-32-4212, Revision 05, dated September 26, 2008 (for Model A340-200 and -300 series airplanes).

(1) For MLG retraction actuator piston rods having P/N 114256309, or P/N 114256321 issue 03: Inspect at the later of the times specified in paragraphs (o)(1)(i) and (o)(1)(ii) of this AD.

(i) Within 1,750 flight hours, 315 flight cycles, or 5 months after the effective date of this AD, whichever occurs first.

(ii) Before the MLG retraction actuator has been in service 36 months.

(2) For MLG retraction actuator piston rods having P/N 114256326 issue 01, or P/N 114256321 issue 06: Inspect at the later of the times specified in paragraphs (o)(2)(i) and (o)(2)(ii) of this AD.

(i) Within 1,750 flight hours, 315 flight cycles, or 5 months after the effective date of this AD, whichever occurs first.

(ii) Before the MLG retraction actuator has been in service 72 months.

**(p) Corrective Action for One-time Ultrasonic Inspections of the Full-Length of the Piston Rod**

(1) If the finding of the full-length ultrasonic longitudinal inspection required by paragraph (o) of this AD gives an indication of 75% or higher FSH and between 5 and 7 in time base: Before further flight, replace the MLG retraction actuator with a new or serviceable part, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-32-3173, Revision 05, dated September 26, 2008 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-32-4212, Revision 05, dated September 26, 2008 (for Model A340-200 and -300 series airplanes).

(2) If the finding of the full-length ultrasonic circumferential inspection required by paragraph (o) of this AD gives an indication of 75% or higher FSH and between 7 and 9.5 in time base: Before further flight, replace the MLG retraction actuator with a new or serviceable part, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-32-3173, Revision 05, dated September 26, 2008 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-32-4212, Revision 05, dated September 26, 2008 (for Model A340-200 and -300 series airplanes).

**(q) Reporting Requirement**

Report the results (regardless of findings) of the detailed inspection, the fluid drain/seal of the retraction actuator piston rod, the one-time ultrasonic longitudinal inspection of the upper end of the piston rod, and the one-time full-length ultrasonic

circumferential inspection required by this AD, and the findings of the actions required by this AD that cause an actuator to be replaced, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-32-3173, Revision 05, dated September 26, 2008 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-32-4212, Revision 05, dated September 26, 2008 (for Model A340-200 and -300 series airplanes). Submit the report to Airbus Customer Services Directorate, Attention: SEDCC1 Technical Data and Documentation Services fax: (+33) 5 61 93 28 06; email: [sb.reporting@airbus.com](mailto:sb.reporting@airbus.com), or via your resident customer support office.

Submit the report at the applicable time specified in paragraph (q)(1) or (q)(2) of this AD.

(1) If the actions requiring reporting, as specified in paragraph (q) of this AD, are done on or after the effective date of this AD: Submit the report within 90 days after those actions have been done.

(2) If the actions requiring reporting, as specified in paragraph (q) of this AD, were done before the effective date of this AD: Submit the report within 90 days after the effective date of this AD.

**(r) Terminating Actions for Repetitive Detailed Inspections**

Accomplishment of the initial drainage of the fluid from the piston, as required by paragraph (j) of this AD, the full-length ultrasonic longitudinal inspection, and the full-length circumferential inspection, as required by paragraph (o) of this AD, constitutes terminating action for the repetitive detailed inspections required by paragraph (g) of this AD, provided no crack is found during the inspections.

**(s) Terminating Modification**

Within 48 months after the effective date of this AD: Modify the left-hand and right-hand MLG retraction actuators, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-32-3180, Revision 03, dated

January 28, 2011 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-32-4222, Revision 03, dated January 28, 2011 (for Model A340-200 and -300 series airplanes). Accomplishment of the modification required by this paragraph terminates the repetitive requirements of this AD for the MLG retraction actuator that is modified.

**(t) Exception to Re-identification of the MLG Retraction Actuator**

The re-identification of the MLG retraction actuator having P/N 114256002-055, which is described in Airbus Mandatory Service Bulletin A330-32-3180, Revision 03, dated January 28, 2011 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-32-4222, Revision 03, dated January 28, 2011 (for Model A340-200 and -300 series airplanes); is not required on airplanes that have Airbus modification 52980 embodied in production.

**(u) Optional Parts Installation**

Installation of retraction actuator piston rod having P/N 114256323, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A330-32-3174, Revision 02, dated September 16, 2005 (for Model A330 series airplanes); or Airbus Service Bulletin A340-32-4213, Revision 01, dated September 16, 2005 (for Model A340-200 and -300 series airplanes); constitutes an acceptable method of compliance with the requirements of paragraphs (g), (j), (l), and (o) of this AD for that installed MLG retraction actuator.

**(v) Parts Installation Limitation**

As of the effective date of this AD, no person may install a piston rod having P/N 114256309, or 114256321, or 114256326 issue 01 for the MLG retraction actuator on any airplane, unless the part meets the applicable requirements of this AD at the specified times and intervals.

**(w) Credit for Previous Actions**

(1) This paragraph provides credit for the actions required by paragraphs (g), (j), (l), and (o) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraphs (w)(1)(i) through (w)(1)(ix) of this AD.

(i) Airbus Mandatory Service Bulletin A330-32-3173, dated December 17, 2003; (for Model A330 series airplanes).

(ii) Airbus Mandatory Service Bulletin A330-32-3173, Revision 01, dated June 16, 2004 (for Model A330 series airplanes).

(iii) Airbus Mandatory Service Bulletin A330-32-3173, Revision 02, dated May 11, 2005 (for Model A330 series airplanes).

(iv) Airbus Mandatory Service Bulletin A330-32-3173, Revision 03, dated March 13, 2006 (for Model A330 series airplanes).

(v) Airbus Mandatory Service Bulletin A330-32-3173, Revision 04, dated June 12, 2006 (for Model A330 series airplanes).

(vi) Airbus Mandatory Service Bulletin A340-32-4212, dated December 17, 2003 (for Model A340-200 and -300 series airplanes).

(vii) Airbus Mandatory Service Bulletin A340-32-4212, Revision 01, dated June 16, 2004 (for Model A340-200 and -300 series airplanes).

(viii) Airbus Mandatory Service Bulletin A340-32-4212, Revision 02, dated May 11, 2005; Revision 03, dated March 13, 2006 (for Model A340-200 and -300 series airplanes).

(ix) Airbus Mandatory Service Bulletin A340-32-4212, Revision 04, dated June 12, 2006 (for Model A340-200 and -300 series airplanes).



(2) This paragraph provides credit for the actions required by paragraph (s) of this AD, if the modification was done before the effective date of this AD using the service bulletins specified in paragraphs (u)(2)(i) through (u)(2)(iv) of this AD.

(i) Airbus Service Bulletin A330-32-3180, Revision 01, dated August 15, 2005 for Model A330 series airplanes).

(ii) Airbus Mandatory Service Bulletin A330-32-3180, Revision 02, dated April 4, 2007 (for Model A330 series airplanes).

(iii) Airbus Service Bulletin A340-32-4222, Revision 01, dated August 15, 2005 (for Model A340-200 and -300 series airplanes).

(iv) Airbus Mandatory Service Bulletin A340-32-4222, Revision 02, dated April 4, 2007 (for Model A340-200 and -300 series airplanes).

(3) This paragraph provides credit for the actions required by paragraph (s) of this AD, if the modification was done before the effective date of this AD using Airbus Service Bulletin A340-32-4222, dated September 20, 2004; and re-identified using Airbus Service Bulletin A340-32-4222, Revision 01, dated August 15, 2005, or Airbus Mandatory Service Bulletin A340-32-4222, Revision 02, dated April 4, 2007.

**(x) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Vladimir Ulyanov, Aerospace Engineer,

International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-1138; fax (425) 227-1149. Information may be emailed to: [9-ANM-116-AMOC-REQUESTS@faa.gov](mailto:9-ANM-116-AMOC-REQUESTS@faa.gov). Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent, or the DAH with a State of Design Authority's design organization approval). For a repair method to be approved, the repair approval must specifically refer to this AD. You are required to assure the product is airworthy before it is returned to service.

**(3) Reporting Requirements:** A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory.

Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

**(y) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) European Aviation Safety Agency Airworthiness Directive 2011-0178R1, dated March 6, 2012 (corrected March 7, 2012); and 2011-0179R1, dated March 6, 2012; for related information. These MCAIs may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0012.

(2) For service information identified in this AD, contact Airbus SAS – Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com); Internet <http://www.airbus.com>. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue

SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on January 29, 2014.

John P. Piccola,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

[FR Doc. 2014-02522 Filed 02/05/2014 at 8:45 am; Publication Date: 02/06/2014]